G275-1
1/11/89 A

THE CHRONICLE
of Higher Education.

ISSN 0095-7402

January 11, 1989 • $2
Volume XXXV, Number 18

News Summary

Articles on inside pages

A dispute has resurfaced over the validity of different approaches to writing history. Page A4

The human genome project, facing budgetary realities, may focus first on simple organisms. Page A4

The movement to create "academic alliances" between high school and college teachers is considered a success by many people. Page A23

A coalition of education organizations has asked President-elect Bush to propose an 11-per-cent increase in education spending. Page A27

On the tax issues of most concern to college lobbyists this year, the plans of key policymakers are still a mystery. Page A27

Drug tests for all prospective state employees in Florida, including new college presidents, were proposed by the Governor. Page A27

Anxieties about money and status, among other things, have caused growing stress among college freshmen, a survey finds. Page A32

The N.C.A.A. may turn to year-round, random drug testing to halt the use of steroids. Page A35

South Africa is contemplating a startling possibility—the integration of its white universities over the next 10 to 20 years. Page A39

Racial tensions between Chinese and African students worsened in China and spread last week to other cities, including Beijing. Page A39

SECTION 1	Pages A1-48
Athletics	A35-38
Books	A9, 25
Business & Philanthropy	A31
Coming Events	A44
Computers	A26
Deadlines	A46
Deaths	A43
Fact File	A33, 34
Gazette	A43
Government & Politics	A27-30
Grants	A31
International	A39-42
Personal & Professional	A23-26
Scholarship	A4-10
Students	A32-34

SECTION 2	Pages B1-B8
Bulletin Board	B6-B7
End Paper	B8
Opinion & Letters	B1-6

Financial Squeeze at U.S. Observatories Forces Staff Cuts, Deferred Maintenance

By KIM A. McDONALD

U.S. astronomers, who have long enjoyed the world's most sophisticated research facilities, are now caught in a serious financial squeeze—a result of sharply higher costs for building and repairing observatories and of the failure of federal support to keep pace with inflation.

Administrators of the country's national observatories complain that to make ends meet they have been forced to reduce their staffs, defer maintenance, and put off purchases of new equipment.

Some fear that unless Congress provides a major increase next year, it may be difficult to keep all of the existing facilities operating—or to consider replacing the 300-foot radio telescope that collapsed in Green Bank, W.Va., two months ago.

Until that dramatic collapse, which reduced a national facility used by hundreds of astronomers to a pile of twisted metal, the "crisis" in astronomy, as some have termed it, had gone largely unnoticed by the public.

'It Just Doesn't Make Any Sense'

While most fields of science have received healthy increases in federal support, astronomy, to the puzzlement of many in the discipline, has quietly remained a neglected stepchild.

"In a period in which we are talking about doubling the budget of the National Science Foundation, I have a hard time understanding why astronomy can't get enough funding to cover cost-of-living increases," complains Sidney C. Wolff, director of the National Optical Astronomy Observatories in

Continued on Page A8

Universities, Government Labs, and Industry Urged to Collaborate on Superconductors

WASHINGTON

A Presidential advisory panel last week called on universities, government laboratories, and companies to combine their talents and apply the results of recent research on superconductivity before other countries take the lead in the technology.

The panel recommended the creation of four to six consortia—each composed of several companies, a government research laboratory, and a university—that would accelerate the development of products that make use of high-temperature superconductors.

Such materials, which allow a resistance-free flow of electricity, are expected to revolutionize the electrical and electronics industries over the next decade, paving the way for such developments as high-speed computers and trains.

Although many of the high-temperature superconductors were discovered in the United States, American researchers fear that Japan and other countries will be better at capitalizing on the technology by developing applications that can be rapidly turned into new products.

That concern prompted President Reagan last February to appoint a panel of

Continued on Page A6

Scholars' Panel Calls Humanities Healthy, Assails Critics' Views

Future doesn't lie in blind return to the past, report asserts

By BEVERLY T. WATKINS

Contrary to the claims of critics, the humanities are in remarkably good condition on the nation's campuses, says a report released last week by the American Council of Learned Societies.

Students who would have enrolled in business, technology, and law a few years ago are now turning to the humanities in growing numbers, the report says. Both undergraduate and graduate students "evidently feel that exciting things are taking place in the humanities, in the self-consciously innovative sectors as well as in the traditional departments."

The text of "Speaking for the Humanities," a report from the American Council of Learned Societies, begins on Page A11.

The report, called "Speaking for the Humanities," contends that critics are "wide of the mark" in attacking the humanities for, among other things, valuing research over teaching, producing specialized scholars who cannot communicate with the public, saving their best professors for graduate courses, and skewing the curriculum by adding inappropriate works.

'On the Defensive'

It also calls "incorrect" the charge that the humanities disciplines brought about their own much-publicized enrollment decline.

The report was developed by six humanities professors who were worried about the attacks on their disciplines, feeling that

Continued on Page A11

Iowa's Recovering Economy Brings New Scrutiny, Not New Money, Colleges Find

By SCOTT JASCHIK

DES MOINES

"Just wait 'til the farm crisis ends."

A visitor to Iowa colleges and universities a few years ago would hear that refrain time and again from faculty members and administrators talking about how the state's economic problems were hurting Iowa higher education.

Sure, they would say, vacant positions were not being filled, tuition was rising rapidly, and buildings and morale were crumbling. But they would quickly add that as soon as farm prices started to stabilize, the state would return to its traditional strong support for education.

Not quite. Today, signs of economic recovery abound in Iowa. New buildings are going up in Des Moines, new businesses are locating in the state, and farmers say they see better times ahead.

But for higher education, the expected

Continued on Page A28

UNIVERSITY OF IOWA

Hunter Rawlings, president of the University of Iowa, taking part in the State Fair: "I hope people see that we are not aloof and we are not above it all."

MARGINALIA

Mailroom:

Manhattanville College's copies of *Fortune* magazine are addressed to:

MANITA MANVILLE COLL

■

Classified ad in *American Libraries*:

"REF. LIB. Immediate opening. Will perform prof. duties & general ref. & info. services, acqs., & adult collection development. Bibl. skills in all subject areas needed, & exp. in federal & state gov't docs. Proven record in ref. & mat'ls selection. Good organizer, efficient, highly motivated, team worker who sets priorities, pleasant personality, mature judgment. 40-hr. days."

Slave drivers!

■

From successive issues of the Kenyon College *Newscope*:

"KENYON SUMMER IN ROME—Don't miss out on this frivolous opportunity for academic credit, fun and enrichment."

"EVERYONE, PLEASE EXCUSE TYPOGRAPHIC ERROR in 12/12 *Newscope* regarding the Kenyon Summer in Rome. It is truly a FABULOUS opportunity rather than frivolous!"

Noted.

■

Notice posted at the U.S. Air Force Academy:

"The topic of Michael Walzer's address for the first Joseph Reich Sr. Lecture in ethics was listed erroneously on the initial invitation. Instead of 'Emerging Ethnics,' Mr. Walzer will be discussing 'EMERGENCY ETHICS.'

"We apologize for the error."

Think nothing of it.

■

News item in the Sioux Falls (S.D.) *Argus Leader*:

"Robert Timm, a former South Dakota resident, has been named the state's new adult literacy coordinator.

"As coordinator, Timm will work with the state's 20 local literacy councils and help them raise funds and meet the needs of South Dakota's about 20,000 illiterate adults.

"He will also be responsible for developing training resources and researching and soliciting public grant funds and private funding sources to promote adult illiteracy."

A worthy cause if ever we heard of one.

■

The Diamondback, student newspaper at the University of Maryland at College Park, reports that "ten students from the University's Coppin State College campus are scheduled to visit here Thursday as part of a new strategy to combat black graduate minority enrollment that is well below University goals."

—C. G.

In Brief

Judge Ends Suspensions of 2 Dartmouth Students

A New Hampshire judge last week ordered Dartmouth College to readmit two students who were suspended for 18 months after a confrontation with a black professor. The students are staff members of the Durtmouth *Review*, a conservative weekly newspaper.

The order came in a temporary injunction by Superior Court Judge Bruce Mohl, who is hearing a lawsuit filed by the students against the college. The lawsuit charges that Christopher Baldwin and John Sutter were suspended, along with two others, because college officials disagreed with opinions expressed in the *Review*. The students have filed a similar lawsuit in federal court.

Judge Mohl's order said that one of the eight members of the committee that suspended the students might have been biased against the newspaper. The committee member had earlier signed a letter protesting a *Review* article about female faculty members.

The confrontation with William Cole, a music professor, began when the students asked him for comments about a transcript of one of his classes that the paper was planning to print.

Robert Morris College Closing 1 of 3 Campuses

Robert Morris College will close its Carthage, Ill., campus in July because of declining enrollment and budget deficits.

The 23-year-old Carthage campus, which enrolls 375 students, is one of three campuses of the private, residential junior college. The others are in Chicago and Springfield, Ill.

Richard Pickett, president of the college, said the campus had had difficulty recruiting students because of competition from local community colleges, which charge lower tuition.

He also said the Carthage economy could not support the college's record of placing 97 per cent of its graduates in jobs. "Robert Morris College must prepare for the future by delivering education where we can also deliver jobs," Mr. Pickett said.

The college is seeking to sell the Carthage campus to a buyer who would employ many of the campus's 110 employees, a college spokeswoman said.

Presidential Artifacts Going to Eureka College

President Reagan has been sending boxes of memorabilia to his alma mater, Eureka College, which plans a permanent exhibit honoring its most famous alumnus.

Mr. Reagan has given the college more than 300 books, half of them signed by the authors or other famous figures. Also included in the collection are samples of gifts the President has given to guests, such as Presidential jellybean jars and silver medallions, and gifts that have been given to him, including seven autographed footballs.

The college is raising $3-million for a conference center and auditorium that will include a special room to display the items.

Iona and Elizabeth Seton Contemplate a Merger

Elizabeth Seton College would merge with Iona College under a plan that trustees from the two Roman Catholic institutions are expected to vote on next month.

Elizabeth Seton, a two-year college in Yonkers, N.Y., suggested the consolidation two years ago. Faced with increasing competition from proprietary schools in the area, the college decided to preserve its two-year mission by joining with a larger institution, said Brother John G. Driscoll, Iona's president.

The merger plan calls for the two colleges to become a single institution named Iona College. A school within the college would be named after Elizabeth Seton and would include its two-year programs.

If the colleges' trustees approve it, the consolidation will go before the New York State Board of Regents in mid-February. The new college would include both Iona's 35-acre campus on Long Island and Seton's 21-acre campus on the Hudson River.

Rhode Island Fraternity Suspended for Hazing

A University of Rhode Island fraternity has been suspended for a year and a half after a hazing incident in which pledges reportedly were forced to guzzle beer and sit naked on blocks of ice.

A university spokeswoman said the fraternity had been told to cease all activities. The 50 residents of its house must find alternative housing, she said.

In suspending the fraternity until September 1990, university officials added a year to the penalty recommended by the judicial panel of the university's Interfraternity Council.

The university also put the fraternity on probation for the 1990-91 academic year and ordered alumni of the chapter and representatives of the national fraternity to interview current fraternity members before any of them are allowed to return to the house.

Texas Board Reverses Ban on Contraceptives

The governing board of Southwest Texas State University has reversed an earlier decision to ban the distribution of contraceptives on the campus.

The earlier decision, which prohibited the university's health center from prescribing or distributing contraceptives, had drawn

'Read My Lips' Makes List of Linguistic Undesirables

SAULT STE. MARIE, MICH.

In 1987, Michael Locke submitted the phrase "Read my lips!" to Lake Superior State University for banishment from the English language.

This year, when Mr. Locke resubmitted the phrase, university officials finally agreed with him.

They included George Bush's invitation on their annual "Dishonour List" of words and phrases to be stricken from the language because they're mis-, mal-, or over-used.

Kari Zipf, of Walla Walla, Wash., said "catastrophic health insurance" should be banned. "I sure don't want insurance to make certain that I acquire catastrophic health," she wrote. "I have enough problems as it is."

A Rich Source

The 1988 election was a rich source of questionable "contributions" to the language over and above Mr. Bush's. A "sound bite," one contributor mused, "must refer to the words that a politician will have to eat after the election." Another said that "spin doctors" ought to refer only to nice moves by Julius Erving.

One contributor was bothered by the use of "gourmet" as an adjective. Asked George Drury: "What, or whom, does 'gourmet-flavor' cat food taste like?" —THOMAS H. MOORE

Students and Faculty Rate Telecourses Favorably, Study Finds

WASHINGTON

Television courses are at least as hard as classroom courses, and often better, according to a study by the Annenberg/Corporation for Public Broadcasting Project.

More than 200 students and 216 faculty members at 150 institutions participated in the survey, which looked at 5 of the 14 television courses financed by the project. "The Write Course," on composition and rhetoric; "The Constitution: That Delicate Balance," a political-science course; "French in Action"; "Economics USA," and "The New Literacy," an introduction to computers.

Although students generally got lower grades on telecourses—an average 3.04 compared to their grade-point averages of 3.34—they said they would take other telecourses and recommend them to friends.

Use of Experts Cited

They said they had learned more, in part because the telecourses brought in experts with different points of view, and in part because the broadcast format allowed them to record the programs and replay them, stopping, reviewing, and skipping parts as necessary.

On the negative side, students said procrastination was their biggest problem, followed by difficulty in understanding their professors' expectations without regular contact.

The Annenberg/C.P.B. telecourses—produced nationally, often by universities—are typically broadcast over public-television stations at set times. The colleges that offer the courses for credit supply professors who meet with students in person or by phone, check assignments, and grade tests.

Faculty members, too, cited the lack of contact—and their inability to help students who needed more structure—as problems with telecourses.

Nearly 90 per cent of the students taking the television courses were also taking one or more on-campus courses, and more than 75 per cent worked full or part time. They said they had chosen television courses for convenience. More than 80 per cent had video-cassette recorders, and recorded broadcasts to play when they had time to watch—usually viewing two half-hour programs at a sitting.

Faculty members generally gave high marks both to the courses and to the students who took them. Although for the most part the faculty members were assigned to teach the telecourses, most said they would teach them again, and would recommend that their institutions offer such course again.

Studying Still Required

Students said they had spent about the same amount of time—3.4 hours a week—studying for television courses as for on-campus courses.

Faculty members, too, spent the same time on telecourses as on classroom courses, although most of that time was spent responding to students, not preparing lectures.

The 15-year, $150-million Annenberg/C.P.B. Project was started in 1981 to support the use of telecommunications and information technology to enhance the quality and availability of higher education.

—JUDITH AXLER TURNER

The Chronicle of Higher Education (ISSN 0009-5982) is published weekly except the last two weeks in August and the last two weeks in December, at 1255 Twenty-Third Street, N.W., Washington, D.C. 20037. Subscription rate: $55 per year. Second-class postage paid at Washington, D.C., and at additional mailing offices. Copyright © 1989 by The Chronicle of Higher Education, Inc. Printed in the United States of America. POSTMASTER: Send address changes to The Chronicle of Higher Education, P.O. Box 1955, Marion, Ohio 43305. Member, Audit Bureau of Circulations. The Chronicle reserves the right not to accept an advertiser's order. Only publication of an advertisement shall constitute final acceptance of the advertiser's order.

Note Book

While many administrators are seeking alcohol-abuse prevention programs that work, Dordt College students and staff members say they've got their answer: the SUB Club.

On club nights at the Student Union Building, a.k.a. the SUB, guests choose from a menu of 17 mixed drinks and eight ice-cream beverages with names like Tarzan's Revenge, Choco-Mint Twist, and Pilgrim's Progress.

"We do not try to match names to common alcohol drinks," says Scott Sterenburg, a sophomore and the SUB Club's general coordinator. The club serves an average of 500 of the non-alcoholic drinks on each of its special evenings, with 7-Up, among other things, replacing alcohol.

Student volunteers take part in planning, purchasing supplies, setting up the room, and acting as waiters and waitresses for the monthly evenings.

For each event they choose a theme and decorate the room to match. "Sports Night," "Nerd Night," "Roaring 20's," and "Think of Summer"—held in the middle of winter—have been among the themes. Students are invited to dress up accordingly.

By giving students the chance to socialize over mixed, non-alcoholic drinks, the SUB Club attempts to show students they can have fun with their friends without alcohol.

The club, which attracts nearly 25 per cent of Dordt's students to its gatherings, is best at providing an alternative for the non-drinker "who might just want to try a first alcoholic drink for the taste," says Glenda Droogsma, the college's director of personal counseling.

■

Campus Compact: the Project for Public and Community Service is now accepting nominations from its members for its third annual Student Humanitarian Service Award.

Five students will be awarded the $1,500 awards for public service in any field.

More information or an application can be obtained from Campus Compact: the Project for Public and Community Service, Box 1975, Brown University, Providence, R.I. 02912. Applications, which must be submitted by the college and university presidents who make up the Compact's membership, are due February 24.

■

A second edition of "Lovejoy's College Guide for the Learning Disabled" is now out, with a directory of more than 270 colleges and universities, a special-programs section, a sports index, and tips for a successful college experience—including coping skills and advice to parents from university professionals. The book can be purchased by sending a $14.95 check to Lovejoy's College Guide Inc., P.O. Box Q, Red Bank, N.J. 07701.

Students

Survey of Freshmen Finds a Growing Level of Stress Caused by Anxieties About Money and Status

Study reports that fewer first-year students say they are enrolling to gain a general education

LOS ANGELES

Anxieties about money, status, and the college-admissions process appear to have led to growing stress among college freshmen, according to a national survey scheduled to be released this week.

The survey, which has been conducted annually since 1966 and is a widely cited barometer of the changing characteristics of freshmen, indicates "some decline in the overall emotional health of freshmen," said Alexander W. Astin, director of the Higher Education Research Institute at the University of California at Los Angeles and one of the authors of the survey report.

Although still a minority, the proportion of new students who smoke, who feel depressed, and who feel overwhelmed has risen in recent years. In addition, the proportion who consider themselves "above average" in emotional health has slipped.

Concern Over Financial Security

At the same time, more students than ever are worried about their financial security. A growing number say they decided to attend college to earn more money, and fewer say they are enrolling to gain a general education.

The survey's findings also reveal that admission to college is becoming more competitive. Students are applying to more colleges and fewer are attending their first-choice institution.

"Sheer money and status and prestige are more attractive to students than the joy of learning and the meaningfulness of work," said Mr. Astin. "It's not a promising sign."

Although the survey results do not pinpoint the sources of anxiety among students, Mr. Astin believes that the importance students attach to money and prestige is to blame. "The finding on stress is admittedly some conjecture on our part," he said, "but we've noticed these trends in the past, and this is the first year that we've seen the full pattern and made sense of it."

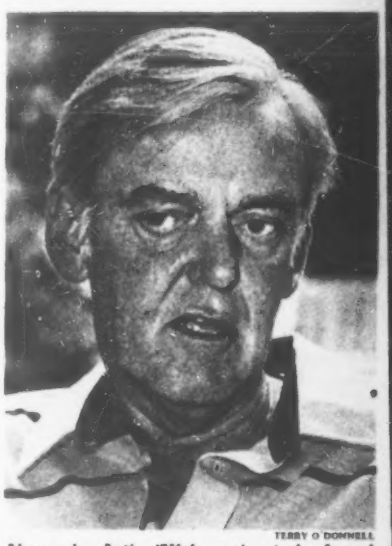
While acknowledging that students' preoccupation with material goods was "simply a reflection of the larger society," Mr. Astin said that, nonetheless, the phenomenon had "tremendous implications" for educators. "We're going to be faced with a decision," he said. "Do we passively watch these trends, or do we encourage students to look at other kinds of values?"

The wide-ranging survey also documents shifts in students' career and educational aspirations and changes in their political beliefs and social attitudes.

An update on one of the survey's most widely reported trends—a steady slide in the proportion of freshmen who believe that "developing a meaningful philosophy of life" is an important goal—is not available this year. Because of technical problems with the latest survey, the responses to that question and some others are not comparable to those of previous surveys. (See accompanying story.)

Business was again the most popular career choice of college freshmen, although the proportion intending a business career slipped to 23.6 per cent from the 1987 record high of 24.6 per cent. Interest in teaching in the elementary or secondary schools continued to climb, reaching 8.8 per cent in 1988.

In the latest survey, a record 58.7 per cent of those polled said they intended to earn advanced degrees, a finding that Mr. Astin said could suggest that students thought a bachelor's degree was an "inadequate credential" in the job market.



TERRY O'DONNELL

Alexander Astin: "We're going to be faced with a decision. Do we passively watch these trends, or do we encourage students to look at other kinds of values?"

The survey shows that in recent years, the political preferences of freshmen have shifted away from the middle. The proportion holding "middle-of-the-road" views dropped to 53.9 per cent in the latest survey from a peak of 60.3 per cent in 1983. Some 24.3 per cent of those polled this fall said they held "liberal" or "far left" views, while 21.8 per cent had "conservative" or "far right" political preferences.

Although many freshmen describe themselves as moderates, they continue to hold "traditionally liberal" views on many social and political issues. For example, a majority of those polled agreed that abortion should be legal and that busing is an acceptable way to desegregate schools.

AIDS Testing Supported

Freshmen are strong supporters of testing for AIDS and for drug use. In questions asked for the first time, 67.7 agreed that AIDS is best controlled through widespread, mandatory testing, and 71 per cent agreed that employers should be able to require that employees or job applicants be tested for drug use.

The survey shows a decline in the proportion of freshmen receiving federal student aid, and an increase in those who rely on college grants and aid from parents.

The survey covered 222,296 full-time freshmen enrolled at 402 colleges and universities last fall. It was sponsored by the American Council on Education and the Graduate School of Education at U.C.L.A.

Copies of the 174-page report, "The American Freshman: National Norms for Fall 1988" are available for $17 prepaid from the Higher Education Research Institute, Graduate School of Education, 320 Moore Hall, University of California at Los Angeles, Los Angeles 90024-1521.

—JEAN EVANGELAUF

Dramatic Change in a Student Attitude Turns Out to Be Survey-Takers' Mistake

LOS ANGELES

What first appeared to be the most startling news to come out of this year's annual survey of college freshmen turned out to be no news at all. In fact, it turned out to be one big mistake.

What tipped off the survey staff members to their error was an "improbable" gain in the proportion of those who believe that "developing a meaningful philosophy of life" is an important goal.

Over the last 20 years, the proportion believing it is important to develop such a philosophy has dropped fairly steadily. But in the latest survey, it soared 11 points, to 50.5 per cent. Typically, one-year changes are much smaller.

'Frankly, We Goofed'

After conducting an "exhaustive" review, the researchers discovered the surprising source of the anomaly—a change in the question preceding the "philosophy" item on the survey form.

"Frankly, we goofed," admitted Alexander W. Astin, director of the survey project.

In the survey report, Mr. Astin explained the situation this way:

"From 1971 to 1987, the preceding item was 'become involved in programs to clean up the environment.' When this item was dropped in 1988, the preceding question became 'be successful in my own business.' The environment item . . . was considered to be a very important objective by barely one-quarter or less of the freshmen. The business item, on the other hand, was considered very important to 45-50 percent of the freshmen. Apparently, the respondents were predisposed by their response to the environment item when considering their response to the 'philosophy of life' item."

Mr. Astin said the responses to the "philosophy of life" item and the other 19 items included in that section of the survey should not be compared to previous year's findings.

—J.E.

FACT FILE: Attitudes and Characteristics of This Year's Freshmen

Age on December 31, 1988:

16 or younger	0.1%
17	2.6%
18	73.3%
19	18.8%
20	1.7%
21-24	1.6%
25-29	0.7%
30-39	0.8%
40-54	0.2%
55 or older	0.0%

Racial/ethnic background:

White	83.2%
Black	9.5%
American Indian	0.8%
Asian-American	2.9%
Mexican-American	1.8%
Puerto Rican-American	1.4%
Other	2.2%

Average grade in high school:

A or A+	11.0%
A–	12.6%
B+	18.5%
B	24.8%
B–	14.2%
C+	11.5%
C	7.0%
D	0.4%

Year of high-school graduation:

1988	93.6%
1987	2.3%
1986	0.7%
1985 or earlier	1.3%
H.S. equivalency (G.E.D. test)	1.3%
Never completed high school	0.2%

Have met or exceeded recommended years of study, as proposed by the National Commission on Excellence in Education, in:

English (4 years)	94.9%
Mathematics (3 years)	91.5%
Foreign language (2 years)	78.6%
Physical science (2 years)	49.5%
Biological science (2 years)	34.7%
History, American government (1 year)	99.1%
Computer science (.5 years)	58.1%
Art or music (1 year)	66.8%

Number of honors courses taken in high school:

None	50.0%
One	12.3%
Two or more	37.7%

Number of Advanced Placement courses taken in high school:

None	60.8%
One	17.4%
Two or more	21.8%

Racial composition of high school:

Completely white	16.0%
Mostly white	59.1%
Half white	17.5%
Mostly non-white	5.6%
Completely non-white	1.8%

Racial composition of neighborhood:

Completely white	41.2%
Mostly white	42.4%
Half white	6.2%
Mostly non-white	6.2%
Completely non-white	4.1%

Disabilities:

Health-related	1.2%
Hearing	0.8%
Learning	1.2%
Orthopedic	1.0%
Speech	0.3%
Visual	1.9%
Other	1.4%

Current religious preference:

Baptist	13.4%
Buddhist	0.4%
Congregational	1.2%
Eastern Orthodox	0.6%
Episcopal	2.5%
Islamic	0.3%
Jewish	3.2%
Latter Day Saints	0.3%
Lutheran	6.2%
Methodist	8.7%
Presbyterian	4.5%
Quaker	0.2%
Roman Catholic	36.2%
Seventh-Day Adventist	0.3%
Other Protestant	4.8%
None	11.6%
Other	5.5%

Residence planned during fall term:

With parents or relatives	30.4%
Other private home or apartment	6.8%
College dormitory	59.3%
Fraternity or sorority house	0.6%
Other campus housing	2.3%
Other	0.6%

Residence preferred during fall term:

With parents or relatives	14.9%
Other private home or apartment	32.3%
College dormitory	37.6%
Fraternity or sorority house	7.3%
Other campus housing	5.7%
Other	2.1%

Miles from college to home:

5 or less	8.7%
6 to 10	9.4%
11 to 50	26.8%
51 to 100	14.7%
101 to 500	29.3%
500 or more	11.2%

Father's occupation:

Artist (incl. performer)	0.9%
Businessman	29.8%
Member of clergy or religious worker	0.9%
Engineer	8.2%
Farmer or forester	2.9%
Lawyer	1.8%
Military career officer	1.7%
Physician or dentist	2.4%
Other health professional	1.3%
Research scientist	0.6%
Teacher or administrator, college	0.9%
Teacher or administrator, elementary school	0.9%
Teacher or administrator, secondary school	3.9%
Worker, skilled	10.1%
Worker, semi-skilled	4.1%
Worker, unskilled	2.9%
Other occupation	24.2%
Unemployed	2.3%

Father's education (highest level):

Grammar school or less	4.1%
Some high school	7.3%
High-school diploma	26.9%
Postsecondary other than college	4.8%
Some college	14.5%
College degree	21.1%
Some graduate school	2.8%
Graduate degree	18.6%

Mother's occupation:

Artist (incl. performer)	1.6%
Businesswoman	14.2%
Member of clergy or religious worker	0.1%
Clerical worker	11.1%
Engineer	0.2%
Farmer or forester	0.3%
Homemaker (full-time)	18.0%
Lawyer	0.3%
Nurse	7.6%
Physician or dentist	0.4%
Other health professional	1.9%
Research scientist	0.1%
Social, welfare, or recreation worker	1.4%
Teacher or administrator, college	0.4%
Teacher or administrator, elementary school	6.7%
Teacher or administrator, secondary school	4.0%
Worker, skilled	2.1%
Worker, semi-skilled	2.6%
Worker, unskilled	1.8%
Other occupation	19.1%
Unemployed	6.1%

Mother's education (highest level):

Grammar school or less	3.1%
Some high school	6.1%
High-school diploma	34.3%
Postsecondary other than college	8.0%
Some college	16.7%
College degree	19.1%
Some graduate school	3.0%
Graduate degree	9.7%

Students estimate chances are very good that they will:

Change major field	14.4%
Change career choice	13.1%
Fail one or more courses	1.4%
Graduate with honors	11.9%
Be elected to student office	3.4%
Get a job to pay college expenses	35.4%
Work full-time while attending college	3.5%
Join a social fraternity or sorority	18.2%
Play varsity athletics	14.8%
Be elected to an honor society	7.2%
Make at least a B average	41.7%
Need extra time to complete degree	7.1%
Need tutoring in some courses	12.7%
Work at outside job	20.0%
Seek vocational counseling	5.0%
Seek personal counseling	3.8%
Participate in student protests	5.4%
Transfer to another college	12.0%

Students estimate chances are very good that they will: (Continued)

Drop out permanently	0.9%
Drop out temporarily	1.1%
Get bachelor's degree	71.3%
Be satisfied with college	51.3%
Find employment in preferred field	70.7%
Marry while in college	4.4%
Marry within a year after college	15.8%

Student rated self above average or in highest 10 per cent in:

Academic ability	56.1%
Artistic ability	24.7%
Competitiveness	54.2%
Drive to achieve	63.7%
Emotional health	56.1%
Foreign language ability	31.4%
Leadership ability	51.6%
Mathematical ability	40.6%
Physical health	58.4%
Popularity	43.5%
Popularity with opposite sex	41.9%
Public speaking ability	29.5%
Self-confidence (intellectual)	49.7%
Self-confidence (social)	43.8%
Writing ability	39.8%

Number of other colleges applied to for admission this year:

None	31.2%
One	15.0%
Two	16.6%
Three	15.2%
Four	9.2%
Five	5.7%
Six or more	7.0%

Number of other college acceptances this year (of those with multiple applications):

None	15.1%
One	27.9%
Two	24.5%
Three	17.1%
Four	8.4%
Five	3.7%
Six or more	3.4%

College attended is student's:

First choice	67.9%
Second choice	23.0%
Third choice	5.8%
Other	3.3%

Prior credit at this institution:

No	96.5%
Yes	3.5%

Reasons noted as very important in selecting college attended:

Relatives' wishes	7.1%
Teachers' advice	4.1%
Good academic reputation	56.0%
Good social reputation	22.6%
Offered financial assistance	21.4%
Offered special education programs	22.0%
Low tuition	21.3%
Advice of guidance counselor	7.5%
Wanted to live near home	19.2%
Friend's suggestion	8.2%
Recruited by college	3.7%
Recruited by athletic department	4.4%
Graduates get good jobs	33.5%
Not offered aid by first choice	4.6%

Highest degree planned at college attended:

None	3.7%
Vocational certificate	0.8%
Associate (or equivalent)	16.1%
Bachelor's	58.4%
Master's	14.8%
Ph.D. or Ed.D.	2.0%
M.D., D.O., D.D.S., or D.V.M.	1.3%
LL.B. or J.D.	1.1%
B.D. or M.Div.	0.2%
Other	1.6%

Highest degree planned anywhere:

None	1.8%
Vocational certificate	0.6%
Associate (or equivalent)	3.9%
Bachelor's	33.1%
Master's	36.3%
Ph.D. or Ed.D.	11.7%
M.D., D.O., D.D.S., or D.V.M.	5.7%
LL.B. or J.D.	5.0%
B.D. or M.Div.	0.4%
Other	1.5%

Probable major field of study:

Arts and Humanities

Art, fine and applied	2.1%
English	1.3%
History	0.8%
Journalism	1.6%
Language or literature	0.6%
Music	1.0%
Philosophy	0.2%
Speech	0.1%
Theater or drama	0.7%
Theology or religion	0.1%
Other	0.8%

Biological Science

Biology (general)	1.8%
Biochemistry or biophysics	0.5%
Botany	0.0%
Marine science	0.4%
Microbiology or bacteriology	0.2%
Zoology	0.3%
Other	0.5%

Business

Accounting	6.1%
Business administration (general)	7.3%
Finance	2.0%
Marketing	2.9%
Management	4.9%
Secretarial studies	0.8%
Other	1.6%

Education

Business education	0.3%
Elementary education	4.9%
Music or art education	0.3%
Physical education or recreation	1.0%
Secondary education	1.7%
Special education	0.6%
Other	0.5%

Engineering

Aeronautical engineering	1.7%
Civil engineering	0.9%
Chemical engineering	0.6%
Electrical or electronic engineering	2.9%
Industrial engineering	0.3%
Mechanical engineering	1.8%
Other	1.3%

Physical Science

Astronomy	0.1%
Atmospheric science	0.1%
Chemistry	0.6%
Earth science	0.1%
Marine science	0.1%
Mathematics	0.6%
Physics	0.4%
Statistics	0.0%
Other	0.1%

Professional

Architecture, urban planning	1.2%
Home economics	0.4%
Health technology	1.0%
Library science	0.0%
Nursing	2.5%
Pharmacy	1.0%
Pre-dental, pre-medical, pre-veterinary	2.8%
Therapy (physical, occupational, etc.)	2.0%
Other	1.3%

Social Science

Anthropology	0.2%
Economics	0.5%
Ethnic studies	0.0%
Geography	0.0%
Political science	3.2%
Psychology	4.1%
Social work	0.9%
Sociology	0.4%
Women's studies	0.0%
Other	0.2%

Technical

Building trades	0.2%
Data processing, computer programming	1.1%
Drafting or design	0.4%
Electronics	0.2%
Mechanics	0.2%
Other	0.4%

Other Fields

Agriculture	1.2%
Communications	2.9%
Computer science	1.7%
Forestry	0.5%
Law enforcement	1.6%
Military science	0.1%
Other	1.4%
Undecided	6.8%

Probable career occupation:

Accountant or actuary	5.9%
Actor or entertainer	1.0%
Architect or urban planner	1.7%
Artist	1.7%
Business (clerical)	1.0%
Business executive	12.4%
Business proprietor	3.9%
Business salesperson or buyer	1.4%
Clergy (minister or priest)	0.1%
Clergy (other)	0.1%
Clinical psychologist	1.7%
Computer programmer or analyst	2.7%
Conservationist or forester	0.7%
Dentist	0.5%
Dietitian or home economist	0.2%
Educator (college)	0.4%
Educator (elementary)	5.6%
Educator (secondary)	3.2%
Engineer	8.6%
Farmer or rancher	0.5%
Foreign-service worker	1.1%
Homemaker (full-time)	0.1%
Interior decorator	0.5%
Interpreter	0.2%

Career occupation: (Continued)

Journalist or writer	2.5%
Lab technician or hygienist	0.5%
Law-enforcement officer	1.2%
Lawyer or judge	5.4%
Military service	1.1%
Musician	1.1%
Nurse	2.5%
Optometrist	0.3%
Pharmacist	1.1%
Physician	3.7%
Research scientist	1.6%
School counselor	0.3%
School principal	0.0%
Social, welfare, or recreation worker	1.4%
Statistician	0.1%
Therapist	2.3%
Veterinarian	0.9%
Skilled trades	0.7%
Other occupation	6.8%
Undecided	11.5%

Estimated parental income:

Less than $6,000	3.7%
$6,000-$9,999	2.9%
$10,000-$14,999	5.1%
$15,000-$19,999	5.4%
$20,000-$24,999	6.9%
$25,000-$29,999	7.0%
$30,000-$34,999	9.1%
$35,000-$39,999	9.1%
$40,000-$49,999	12.4%
$50,000-$59,999	11.6%
$60,000-$74,999	10.7%
$75,000-$99,999	7.0%
$100,000-$149,999	4.8%
$150,000 or more	4.3%

Concern about financing college:

None	36.7%
Some	49.0%
Major	14.3%

Received any aid from:

Parents, relatives	78.2%
Spouse	1.2%
Savings from summer work	54.4%
Other savings	28.6%
Part-time job on campus	19.4%
Part-time job off campus	23.3%
Full-time job while in college	2.1%
Pell Grant	15.6%
Supplemental Educational Opportunity Grant	3.7%
State scholarship	9.7%
College Work-Study	6.6%
Other college grant	20.0%
Other private grant	9.1%
Other govt. aid (ROTC, GI, etc.)	2.4%
Guaranteed Student Loan	20.1%
National Direct Student Loan	2.4%
Other college loan	5.8%
Other loan	5.4%
Other source	2.8%

Received $1,500 or more from:

Parents, relatives	52.4%
Spouse	0.3%
Savings from summer work	6.7%
Other savings	5.0%
Part-time job on campus	0.8%
Part-time job off campus	1.3%
Full-time job while in college	0.5%
Pell Grant	2.5%
Supplemental Educational Opportunity Grant	0.5%
State scholarship	1.5%
College Work-Study	0.3%
Other college grant	8.2%
Other private grant	2.1%
Other govt. aid (ROTC, GI, etc.)	1.4%
Guaranteed Student Loan	7.3%
National Direct Student Loan	0.5%
Other college loan	2.4%
Other loan	2.6%
Other source	1.1%

Number of hours per week in the last year spent on these activities:

None:

Studying or doing homework	1.4%
Socializing with friends	0.3%
Talking with teachers outside of class	7.7%
Exercising or sports	4.0%
Partying	12.5%
Working	24.9%
Volunteer work	56.8%
Student clubs or groups	30.5%
Watching television	5.0%
Hobbies	9.1%

6 or more hours:

Studying or doing homework	41.9%
Socializing with friends	78.2%
Talking with teachers outside of class	9.0%
Exercising or sports	47.9%
Partying	35.5%
Working	63.2%
Volunteer work	5.1%
Student clubs or groups	14.9%
Watching television	32.4%
Hobbies	27.7%

Continued on Following Page

FACT FILE: Attitudes and Characteristics of This Year's Freshmen, Continued

	All institutions			2-year colleges		4-year colleges				Universities		Predominantly black colleges	
Activities in the past year:	Men	Women	Total	Public	Private	Public	Pvt., non-sectarian	Protestant	Catholic	Public	Private	Public	Private
Used a personal computer *	30.1%	25.1%	27.4%	23.2%	22.1%	28.1%	30.3%	28.4%	26.1%	30.3%	36.2%	26.4%	30.7%
Attended a religious service	78.3%	84.5%	81.7%	79.4%	84.2%	84.0%	79.1%	88.9%	89.3%	79.5%	82.2%	88.2%	93.5%
Was bored in class	93.3%	93.8%	93.5%	88.5%	93.1%	95.6%	95.4%	95.3%	96.0%	96.6%	96.4%	90.3%	[illegible]%
Participated in demonstrations	32.4%	37.4%	35.1%	33.7%	42.8%	38.0%	36.1%	36.0%	36.5%	32.7%	29.6%	48.5%	[illegible]%
Won a varsity letter in sports	55.2%	39.2%	46.6%	36.6%	49.0%	51.2%	50.1%	51.9%	53.6%	50.3%	52.1%	44.1%	[illegible]%
Didn't complete homework on time	73.0%	65.1%	68.8%	65.8%	73.8%	70.5%	72.1%	70.7%	68.4%	68.6%	68.2%	69.0%	72.3%
Tutored another student	44.7%	45.1%	44.9%	36.5%	29.0%	43.9%	49.6%	47.8%	46.8%	54.3%	62.2%	41.1%	53.9%
Discussed religion *	18.3%	23.1%	20.9%	15.8%	21.4%	20.5%	25.1%	32.7%	24.6%	20.9%	28.7%	25.6%	33.1%
Did extra course work or reading *	9.0%	12.6%	10.9%	9.5%	10.3%	10.5%	12.7%	12.4%	10.6%	11.9%	13.4%	14.9%	18.7%
Copied homework from another student	58.8%	55.6%	57.1%	54.5%	57.3%	59.4%	54.9%	55.3%	60.5%	59.9%	54.5%	53.9%	55.2%
Studied with other students	85.9%	88.5%	87.3%	82.2%	87.6%	88.6%	89.0%	90.1%	89.3%	90.5%	91.0%	86.1%	89.0%
Was a guest in teacher's home	30.1%	30.5%	30.3%	25.5%	34.8%	32.0%	34.5%	38.2%	29.7%	29.6%	34.2%	30.8%	32.3%
Smoked cigarettes *	8.2%	11.8%	10.1%	14.0%	15.3%	8.7%	9.9%	6.0%	8.6%	7.3%	7.0%	4.7%	2.5%
Discussed sex *	35.3%	26.8%	30.7%	27.5%	28.9%	32.9%	33.8%	28.1%	30.4%	32.6%	32.2%	33.4%	38.9%
Cheated on a test in school	38.7%	34.8%	36.6%	35.6%	37.6%	38.5%	34.2%	33.3%	39.5%	38.4%	32.6%	33.5%	38.4%
Drank beer	72.1%	59.5%	65.3%	66.0%	63.9%	63.9%	64.8%	52.2%	71.6%	68.2%	68.9%	36.5%	35.9%
Drank wine or liquor	63.5%	69.4%	66.7%	65.0%	64.8%	66.5%	67.4%	57.3%	72.8%	70.0%	71.5%	39.5%	45.7%
Discussed politics *	22.0%	15.5%	18.5%	12.5%	13.8%	16.6%	25.5%	24.1%	19.9%	22.3%	32.1%	15.5%	24.7%
Stayed up all night	80.9%	81.1%	81.0%	79.2%	82.6%	81.3%	82.4%	80.2%	81.8%	82.5%	81.4%	79.9%	84.8%
Spoke a language other than English at home *	6.7%	7.1%	6.9%	8.0%	6.9%	4.3%	7.7%	4.4%	8.2%	7.5%	10.8%	4.6%	4.1%
Felt overwhelmed *	14.9%	27.2%	21.5%	16.2%	24.2%	22.2%	24.4%	25.7%	23.9%	24.4%	25.2%	20.4%	23.2%
Felt depressed *	7.4%	13.2%	10.5%	10.1%	13.0%	11.1%	10.9%	11.3%	10.8%	10.0%	9.3%	15.3%	13.8%
Discussed sports *	58.8%	29.0%	42.7%	37.8%	43.9%	45.8%	40.5%	45.6%	46.1%	45.3%	44.6%	43.5%	43.5%
Worked in political campaign	8.7%	8.6%	8.7%	5.6%	7.7%	9.0%	10.9%	11.6%	10.1%	9.8%	13.3%	11.9%	16.7%
Reasons noted as very important in deciding to go to college:													
Parents' wishes	18.9%	19.8%	19.4%	18.2%	21.6%	20.3%	19.7%	20.6%	19.8%	19.1%	19.6%	34.4%	32.4%
Could not find job	3.2%	3.3%	3.3%	5.0%	3.4%	3.2%	2.2%	2.4%	2.2%	2.0%	1.5%	8.2%	5.4%
To get away from home	11.6%	10.9%	11.2%	8.1%	12.6%	12.5%	12.4%	12.4%	10.9%	12.9%	12.6%	19.4%	17.8%
To be able to get a better job	82.7%	82.4%	82.5%	86.1%	83.5%	83.7%	76.2%	77.4%	80.6%	81.4%	77.3%	89.7%	90.6%
To gain general education	53.6%	65.6%	60.1%	58.2%	61.3%	56.8%	65.2%	61.9%	62.5%	60.8%	69.3%	76.0%	73.7%
To improve reading and study skills	35.6%	42.7%	39.4%	41.8%	46.7%	39.1%	39.4%	40.6%	41.8%	35.4%	35.1%	71.6%	64.4%
Nothing better to do	3.4%	2.4%	2.9%	3.8%	3.0%	2.7%	2.5%	2.5%	1.9%	2.2%	2.3%	8.0%	4.5%
To become a more cultured person	29.2%	40.7%	35.4%	31.2%	35.6%	32.5%	42.7%	39.8%	40.0%	37.2%	45.7%	54.0%	61.6%
To be able to make more money	76.5%	69.2%	72.6%	77.5%	75.0%	74.3%	63.7%	62.8%	67.9%	71.9%	62.5%	85.5%	84.9%
To learn more about things	69.3%	77.6%	73.8%	72.2%	75.7%	71.7%	77.8%	74.1%	72.7%	75.2%	78.4%	78.7%	80.2%
To prepare for graduate school	46.1%	53.1%	49.9%	46.5%	55.0%	46.4%	50.2%	50.1%	51.5%	54.8%	59.3%	69.1%	74.6%
Political views:													
Far left	2.7%	2.1%	2.3%	2.7%	2.3%	2.3%	2.9%	2.3%	1.6%	1.8%	1.9%	5.5%	4.0%
Liberal	20.5%	23.2%	22.0%	18.5%	19.9%	21.1%	28.0%	22.0%	21.6%	25.0%	25.7%	26.4%	35.4%
Middle of the road	49.5%	57.0%	53.9%	59.7%	57.2%	55.7%	45.8%	47.2%	54.7%	50.5%	44.1%	47.7%	42.1%
Conservative	24.8%	16.2%	20.2%	17.4%	18.9%	19.4%	21.6%	26.6%	20.7%	21.1%	26.5%	17.9%	16.4%
Far right	2.5%	0.9%	1.6%	1.8%	1.7%	1.5%	1.8%	1.9%	1.4%	1.5%	1.7%	2.5%	1.5%
Agree strongly or somewhat that:													
Government isn't protecting the consumer	61.0%	69.1%	65.4%	69.0%	67.3%	65.7%	66.0%	63.9%	64.9%	61.2%	59.5%	75.8%	76.0%
Government isn't promoting disarmament	56.9%	75.2%	66.7%	65.9%	66.6%	66.7%	69.5%	66.6%	69.6%	66.4%	66.1%	74.5%	82.1%
Government isn't controlling pollution	82.3%	85.3%	83.9%	83.6%	82.8%	82.7%	86.3%	84.7%	84.1%	84.0%	86.6%	80.3%	86.0%
Taxes should be raised to reduce the federal deficit	32.0%	24.1%	27.8%	23.6%	22.6%	26.5%	31.6%	28.5%	26.2%	32.9%	34.8%	22.4%	25.1%
There is too much concern for the rights of criminals	72.7%	66.0%	69.1%	71.1%	66.0%	70.1%	65.8%	67.5%	67.3%	68.8%	65.8%	57.3%	62.4%
Military spending should be increased	33.1%	20.5%	26.3%	30.2%	29.7%	27.9%	23.2%	23.7%	21.0%	22.5%	21.5%	30.9%	21.4%
Nuclear disarmament is attainable	59.5%	61.2%	60.4%	59.5%	59.7%	61.1%	61.7%	59.8%	62.3%	61.0%	58.7%	56.6%	59.4%
Abortion should be legal	56.8%	57.2%	57.0%	52.6%	54.2%	56.0%	64.4%	49.4%	46.6%	64.8%	61.5%	57.0%	63.3%
The death penalty should be abolished	19.6%	26.0%	23.0%	21.6%	24.8%	21.7%	27.0%	25.1%	28.4%	21.9%	27.3%	35.8%	36.4%
It is all right for two people who like each other to have sex even if they've known each other for a very short time	65.1%	37.1%	50.0%	51.0%	45.7%	49.4%	52.5%	37.5%	44.0%	53.9%	49.3%	42.0%	42.4%
Women's activities should be confined to the home	32.1%	20.1%	25.6%	30.5%	30.4%	25.5%	23.5%	23.8%	23.4%	21.3%	19.8%	37.3%	29.0%
Couples should live together before marriage	57.3%	46.3%	51.3%	53.1%	48.7%	49.8%	54.1%	37.8%	45.8%	55.0%	50.9%	52.2%	49.1%
Students might appreciate the value of college more if they had to pay a greater share of the costs	56.2%	50.8%	53.3%	51.7%	55.0%	54.5%	54.1%	53.5%	54.1%	53.1%	54.4%	50.5%	51.2%
Marijuana should be legalized	22.8%	16.4%	19.3%	18.0%	20.1%	18.1%	23.5%	15.6%	17.4%	21.6%	21.1%	21.8%	16.3%
Busing to achieve racial balance in schools is all right	52.3%	54.9%	53.7%	54.9%	57.8%	53.8%	55.8%	53.8%	54.7%	50.5%	51.8%	62.3%	64.1%
Homosexual relations should be prohibited	59.7%	39.9%	49.0%	53.9%	57.2%	53.2%	41.3%	50.3%	44.2%	42.7%	36.4%	51.3%	47.1%
Colleges should divest of South African investments	51.4%	42.1%	46.4%	41.7%	39.2%	43.9%	54.3%	47.5%	46.7%	50.8%	57.9%	50.9%	64.9%
The chief benefit of college is that it increases one's earning power	73.9%	64.7%	69.0%	75.4%	71.9%	72.1%	60.4%	61.2%	64.8%	65.9%	55.6%	76.2%	75.5%
Employers should be allowed to require employees or job applicants to take drug tests	69.8%	72.0%	71.0%	72.4%	70.4%	73.3%	67.8%	73.6%	69.4%	68.3%	67.4%	69.8%	73.8%
The best way to control AIDS is through widespread mandatory testing	67.7%	67.7%	67.7%	73.2%	72.6%	70.3%	62.0%	63.4%	66.0%	62.9%	56.8%	72.4%	67.0%
Just because a man thinks that a woman has led him on does not entitle him to have sex with her	75.3%	91.0%	83.8%	80.4%	82.3%	84.3%	84.5%	87.4%	84.6%	86.1%	86.6%	79.5%	82.7%
Only volunteers should serve in the armed forces	52.7%	53.9%	53.4%	53.0%	53.5%	54.1%	55.8%	52.0%	51.4%	53.3%	51.6%	58.6%	60.7%
Objectives considered essential or very important: †													
Becoming accomplished in a performing art	9.8%	11.3%	10.6%	8.7%	11.5%	10.4%	13.9%	12.6%	10.2%	10.9%	12.9%	14.3%	12.9%
Becoming an authority in his or her field	73.6%	70.6%	72.0%	69.1%	70.6%	72.7%	72.2%	70.3%	71.2%	75.5%	74.9%	80.2%	83.3%
Obtaining recognition from colleagues	56.9%	53.6%	55.1%	52.0%	51.8%	55.8%	55.8%	50.2%	57.3%	59.4%	58.2%	63.6%	65.0%
Influencing the political structure	19.8%	14.2%	16.8%	13.3%	14.2%	18.1%	20.0%	18.5%	18.6%	18.6%	24.1%	28.7%	30.8%
Influencing social values	32.7%	40.7%	37.0%	32.7%	39.9%	37.4%	40.4%	43.8%	41.5%	37.2%	40.5%	51.5%	55.0%
Raising a family	66.5%	67.3%	67.0%	66.1%	66.6%	66.4%	66.6%	69.6%	70.7%	66.9%	70.2%	61.6%	67.5%
Becoming an expert on finance and commerce	32.0%	20.8%	25.9%	26.3%	25.0%	26.9%	22.9%	23.1%	27.4%	26.3%	26.1%	44.1%	37.7%
Having administrative responsibility	42.9%	37.3%	39.8%	39.8%	38.0%	41.9%	35.8%	35.3%	40.7%	40.8%	40.0%	55.8%	50.2%
Being very well-off financially	77.8%	69.7%	73.4%	76.3%	74.7%	75.0%	68.1%	62.4%	71.6%	74.4%	68.7%	84.9%	88.2%
Helping others who are in difficulty	46.3%	65.0%	56.4%	53.7%	59.5%	56.8%	58.5%	63.4%	60.2%	55.2%	59.0%	65.3%	73.9%
Participating in such organizations as Peace Corps or VISTA	6.3%	8.0%	7.2%	6.1%	8.2%	6.1%	10.1%	8.7%	8.7%	7.4%	9.4%	11.7%	10.5%
Making a contribution to scientific theory	15.6%	8.6%	11.9%	10.8%	8.0%	10.2%	13.4%	10.0%	9.9%	15.8%	14.7%	15.2%	18.7%
Writing original works	12.7%	13.3%	13.0%	10.5%	11.6%	12.0%	16.7%	15.0%	13.5%	14.6%	17.3%	15.6%	15.6%
Creating artistic work	11.9%	13.0%	12.5%	11.3%	18.0%	10.8%	17.7%	11.6%	12.6%	12.8%	13.0%	14.6%	11.1%
Keeping up to date with political affairs	38.2%	29.4%	33.4%	24.3%	26.2%	30.5%	41.8%	36.2%	37.3%	40.3%	52.0%	36.5%	46.3%
Being successful in own business	56.8%	48.2%	52.1%	54.2%	60.6%	51.4%	50.5%	45.9%	52.3%	51.4%	49.5%	70.4%	68.5%
Developing a meaningful philosophy of life	49.4%	51.4%	50.5%	44.4%	50.3%	49.9%	56.6%	54.9%	52.6%	53.1%	59.7%	65.9%	67.3%
Participating in a community action program	18.8%	24.2%	21.7%	18.0%	23.2%	21.6%	25.6%	25.8%	24.1%	22.1%	27.5%	35.7%	44.2%
Promoting racial understanding	29.8%	34.2%	32.2%	26.4%	31.2%	31.7%	41.1%	37.1%	33.9%	33.4%	40.7%	63.8%	74.1%
Getting married	66.0%	66.4%	67.3%	64.9%	67.5%	67.2%	67.1%	70.1%	72.0%	66.4%	71.6%	56.5%	61.8%

Note: Because of rounding or multiple responses, figures may add to more than 100 per cent.
* Frequently only; all other activities frequently or occasionally
† Comparisons with previous years not recommended due to change in item order

SOURCE: "THE AMERICAN FRESHMAN: NATIONAL NORMS FOR FALL 1988," BY ALEXANDER W. ASTIN, PUBLISHED BY AMERICAN COUNCIL ON EDUCATION AND UNIVERSITY OF CALIFORNIA AT LOS ANGELES

C2175-1
1/23/89 A

THE CHRONICLE
of Higher Education.

ISSN 0009-5982

January 18, 1989 • $2
Volume XXXV, Number 19

News Summary

Articles on inside pages

Minority-group enrollment rose by 8 per cent from 1984 to 1986, a new report says: Page A2.

Scholars of cultural studies, an interdisciplinary field on the threshold of academic success, gathered to define their discipline: Page A4.

In a landmark study, a composer and conductor pays tribute to jazz and its musicians: Page A4.

Not long ago, many people predicted the demise of campus computer centers. Today, academics are clamoring for their help: Page A13.

Many presidents of small private colleges say their institutions are enjoying a renaissance: Page A13.

The heads of 23 black colleges asked President-elect Bush to re-establish a research council on blacks in higher education: Page A20.

The closing of 91 military bases will offer nearby institutions a potential for growth: Page A20.

As the number of older students increases, some colleges are reconsidering the purposes of undergraduate liberal education, adult-education experts say: Page A27.

College radio stations have become the chief outlets for music considered too experimental for commercial radio: Page A27.

Britain's Education Secretary has outlined a plan to reshape higher education along U.S. lines: Page A37.

SECTION 1	Pages A1-44
Athletics	A33-36
Books	A11, 17
Business & Philanthropy	A25-26
Coming Events	A39
Computers	A19
Deadlines	A41
Deaths	A39
Fact File	A23
Gazette	A39
Government & Politics	A20-24
Grants	A26
International	A37-38
Personal & Professional	A13-19
Scholarship	A4-12
Students	A27-32
SECTION 2	**Pages B1-76**
Bulletin Board	B6-75
End Paper	B76
Opinion & Letters	B1-5

Study of Transcripts Finds Little Structure in the Liberal Arts

Review at 30 colleges said to offer hard evidence of 'fragmentation'

By THOMAS J. DeLOUGHRY

WASHINGTON

A review of more than 25,000 student transcripts from 30 colleges and universities has revealed unstructured liberal-arts curricula that lack depth and all but ignore mathematics and the natural sciences.

Robert M. Zemsky, the University of Pennsylvania professor who conducted the review, said it provided statistical evidence for the "fragmentation" of the liberal arts. Concern over such fragmentation, based on anecdotal evidence, has been expressed by the Association of American Colleges in its report "Integrity in the College Curriculum," and by Allan Bloom in *The Closing of the American Mind* and E. D. Hirsch in *Cultural Literacy*.

Provides 'Little Solace'

Mr. Zemsky, director of the Institute for Research on Higher Education at Pennsylvania, said the study provided "little solace" for people who think the problems of college curricula have been exaggerated by advocates of curriculum reform. He discussed his findings here at this month's meeting of the Association of American Colleges.

"To the extent that the institutions in our sample are representative of colleges and universities in general, we find the undergraduate curriculum in the liberal arts lacking in sufficient breadth of study, particularly in the natural sciences and mathematics, and lacking in substantial depth," Mr. Zemsky said.

The data for the study were compiled

Continued on Page A32

Reagan's Last Budget Proposes Reductions in Student Aid and Increases for Science

WASHINGTON

President Reagan last week issued his last federal budget proposal, with billions of dollars at stake for student aid and research.

Although college officials immediately started to analyze the budget, many said the key issues for higher education this year would not be clear until President-elect Bush makes his views known on the budget, and until Congress begins to hash over the various alternatives.

The outcome of major battles over whether to raise income taxes, how much to cut Pentagon spending, and the size of the federal deficit could create more money for spending on education and other social programs—or could further constrict the flow of federal dollars.

The President's last budget proposed keeping Education Department spending at its present level, and included a 2-per-cent reduction in funds for student aid.

Some programs, such as Pell Grants, would receive modest increases, and Congress is expected to provide more money for the Education Department than the President proposed.

For science and technology programs, President Reagan proposed more generous increases, particularly for several big-ticket items such as the Superconducting Supercollider. However, both President-elect Bush and Congress are expected to make some cuts and changes in the science budget request.

The budget proposal also renewed a battle over federal aid to teaching hospitals. President Reagan asked for major cuts in Medicare payments to the hospitals, and some key Congressional leaders appear ready to go along.

Stories on Page A21, Fact File on Page A23

Colleges Keep 'Revolving Door' Policies for Professors Who Work in Washington

By DEBRA E. BLUM

WASHINGTON

Many of the scholars who are taking posts in the Bush Administration can be reasonably assured that the gates of their home institutions are not swinging shut behind them.

Indeed, many colleges and universities are now welcoming back professors who are returning from jobs under President Reagan.

George P. Shultz, for example, who has been on leave from his job as professor of management and public policy at Stanford University to serve as Secretary of State, is expected to return to the California campus after six years here. In his absence, the university named him to an endowed professorship in international economy at the business school.

"Shultz stayed as active in the university as he could during his time as a Cabinet officer, and now we hope to have him back in full," says James N. Rosse, Stanford's vice-president and provost. Among other things, Mr. Shultz helped organize conferences for the university and served as a commencement speaker.

Meanwhile, Stanford is losing the services of Michael J. Boskin, the professor of economics who will become the chairman of the Council of Economic Advisors in the Bush White House. Mr. Rosse says that Mr. Boskin will be granted at least a two-year leave to serve in his new position.

Concern Over Disruption

To help keep the revolving door between higher education and government service in full swing, most colleges and universities have policies to accommodate faculty members who want to pursue outside appointments and interests but do not want to lose their faculty positions.

While many higher-education officials and professors appreciate the opportunities afforded by such arrangements, others believe they can disrupt the institution.

Leave-of-absence policies allow faculty members to take time off from their teach-

Continued on Page A18

To Head Off Government Intervention, Presidents' Panel Urges NCAA to Make Public Athletes' Graduation Rates

By DOUGLAS LEDERMAN

SAN FRANCISCO

The presidents' commission of the National Collegiate Athletic Association, apparently seeking to head off a threat of federal intervention into the association's affairs, said last week it would consider requiring N.C.A.A. members to release the graduation rates of athletes and other students.

Most proposals for significant changes in N.C.A.A. rules were rejected or deferred at last week's annual meeting: Page A33.

The move by the presidents' commission seemed to be prompted by the expected introduction of two bills in Congress next month. The bills would require all colleges and universities to report to the Department of Education the graduation rates of athletes, categorized by sport, race, and sex, and of all other students, categorized by race and sex.

The measures are to be sponsored by Sen. Bill Bradley, Democrat of New Jersey, Rep. Tom McMillen, Democrat of Maryland, and Rep. Ed Towns, Democrat of New York.

Spokesmen for the lawmakers said they would take a look at the commission's action, but expected to introduce their bills in any event.

When the three sponsors introduced identical legislation in June, college and N.C.A.A. officials denounced it. They said the legislation, known as the Student-Athlete Right to Know Act, had the correct objective—helping athletes make a more educated choice about where to play and study—but said the proposed measures would constitute an unwarranted govern-

Continued on Page A34

MARGINALIA

Classified advertisement in Rutgers University's *Targum Sun*:

"WHAT EVERY COLLEGE STUDENT NEEDS: A WRITING COACH.

"What can 'inside out' writing instruction do for the college student? It is one-on-one between lessons and practice. Does that do it for you? What if it is step-by-step or rewards motivation as much as aptitude? How about specific solutions for particular writing problems? Do you have any specific writing problems. Do you have a particular writing problem . . . like a paper you have been putting off? THE WRITING SCHOOL coaches students through college writing requirements. We do not provide specific solutions for thinking problems. The 'what to write' is up to you. We help you with the writing process. If you decide not to use the services of THE WRITING SCHOOL, eighty to ninety percent of your worktime will be dominated by the thinking process. It is the way students are taught to compose. We change that, make it even, divide it fifty-fifty between thinking and writing, and then we coach you through the writing half. Is it legitimate? If they catch you, you tell them that--excuse me--but they have it wrong. You are not the catchee; they are. We support our services with our methods. English teachers 'write coherently', but not often does anyone pay to read their 'coherent writing'. They are limited in writing experience to the action verb in combination with the positive adverb. Once and for all, you want the real thing, writing advice from those who are capable of writing nouns: 'author', 'commentator', 'reporter', 'scriptwriter', 'novelist', 'poet', 'journalist', 'dramatist'. If they accuse you of cheating on a college paper, turn it around. You respond by saying--'No wonder . . . having been taught to write by English instructors who are not capable of a complete sentence.— Of course, it is not true in terms of sentence grammar. However, in terms which relate writing fundamentals (in this case the modified noun and the modified verb) to writing experience, it is! A working link between writing fundamentals and content describes the methods of THE WRITING SCHOOL. If you are interested in 1) support services for college writing projects and / or 2) writing instruction, please explain if full by letter. . . ."

■

From the Northwestern College (Iowa) *Informer*:

"Are you tired of everyone being too busy to give you feedback on your end-of-the-semester speech, paper, or project? Come to the Open House Study Night at the Writing Center. . . . Bring your assingments and enjoy hot cider, coffee, and cookies while you work."

But no assinging when your mouth is full. —C.G.

In Brief

Union Sues Cal. State U. for Breach of Contract

A union of skilled-trades workers has charged in a lawsuit that the California State University system failed to provide union members with a salary increase called for in a collective-bargaining agreement. The increase was to have taken effect January 1.

Local 1268 of the State Employees Trades Council (A.F.L.-C.I.O.) said about 850 carpenters, plumbers, electricians, and other workers employed by the university were entitled on January 1 to receive a 4-per-cent increase in their base wage and up to 12-percent more in certain jobs.

The lawsuit, filed in Sacramento Superior Court, also named Gov. George Deukmejian and other state officials for failing to allocate $1.4-million to implement the wage agreement. The agreement was part of a contract negotiated in March. A hearing on the lawsuit was set for this week.

Deficit at U. of Bridgeport Leads to Loss of 60 Jobs

Sixty faculty positions at the University of Bridgeport will be eliminated—mostly through attrition—to ease a $10-million deficit officials there expect by summer.

Some of the faculty members are expected to leave on their own accord; others will be offered early-retirement incentives.

The deficit, which has been accumulated over the past four years, is the result, in part, of expected enrollment increases that never materialized. The university, which has 5,600 students, had anticipated about 7,000.

University of Bridgeport administrators say they are working to strengthen recruiting efforts, especially of part-time students.

U. OF SYDNEY TEAM WINS WORLD DEBATING TOURNAMENT

ROBERT MATTHEWS, PRINCETON UNIVERSITY

PRINCETON, N.J.

A team from the University of Sydney won the World Universities Debating Tournament last week with an argument against the proposition "He profits nothing who gains the world and loses his soul."

In the final round, Sydney students Warren Lee (*above, right*) and Andrew Bell (*center*) bested two debaters from the University of Toronto, Justin MacGregor (*left*) and David Conklin. The 116-team tournament was sponsored by Princeton University's American Whig-Cliosophic Society.

Trustees Uphold Firing of Tenured Professor

Trustees of Purdue University last week upheld the firing of a tenured chemistry professor who has been accused of harassing colleagues and of insubordination.

Frank K. Fong, a native of China and a faculty member at Purdue since 1968, is the first tenured professor ever to be fired by the university. Purdue President Steven C. Beering dismissed Mr. Fong in November based on eight charges that were outlined by a faculty committee.

Mr. Fong appealed the dismissal to university trustees. In a special meeting last week, the board unanimously supported the findings against Mr. Fong. Among other charges, he is said to have harassed colleagues over several years with letters and phone calls and to have improperly accused Purdue professors and administrators of misconduct.

The dispute began a decade ago when Mr. Fong was denied a grant by the National Science Foundation to research a theory of photosynthesis that he says would have contradicted earlier work.

Mr. Fong, who says he intends to sue the university, claims that Purdue officials supported the foundation, rather than him, out of concern for its other grants.

Enrollment of Minority Groups Up 8 Pct. Over 2 Years

By MICHELE N-K COLLISON

Fueled by growing numbers of Asian and Hispanic students, minority-group enrollment in colleges and universities increased by 8 per cent between 1984 and 1986, according to a report being released by the American Council on Education this week.

Hispanic students led the enrollment increase with a 17-percent jump, from 535,000 students in 1984 to 624,000 in 1986. Asian students followed with a 15-percent gain during the same period, and American Indians posted a more modest gain of 7 per cent. The 1986 figures are the most recent available from the Department of Education.

This year, many institutions that began programs to recruit minority students reported increases in minority enrollment.

Black Enrollment Is Stable

Black-student enrollment remained stable, with a 0.5-per-cent increase between 1984 and 1986. From 1976 to 1986, while total college enrollment grew from 11 million to 12.5 million, black male enrollment fell from 470,00 to 436,000.

Black colleges also increased their enrollment slightly from 213,000 students in 1986 to 217,000 in 1987, according to the report.

Nevertheless, the authors of the report said the overall enrollment trend was encouraging in light of concern over the decline in black enrollment in previous years. But they warned that the proportion of all minority-group students who enrolled in college had declined from 1976 to 1986, despite increasing high-school graduation rates.

The percentage of minority-group students who graduated from high school increased sharply from 1976 to 1986. The percentage of black students completing high school, for instance, increased to 76.4 per cent in 1986 from 67.5 per cent a decade earlier.

Although Hispanic students posted a large enrollment gain, they represented only 5 per cent of the students enrolled in college, the report said. Black students made up 8.6 per cent of all college students in 1986, compared with 9.4 per cent of the college population in 1976.

Black enrollment in graduate schools increased from 1984 to 1986, reversing a downward trend in the previous years. From 1984 to 1986, black graduate enrollment increased by 8 per cent, from 141,00 to 166,000, and Hispanic enrollment increased 44 per cent, from 32,000 in 1984, to 43,000 in 1986.

The number of Asian graduate students increased 16 per cent, from 37,000 in 1984 to 43,000 in 1986. The number of American Indian graduate students remained stable at 5,000.

The report also noted that while minority groups had made gains in employment in higher education since 1975, most such gains were in non-faculty jobs or low-ranking faculty positions.

In 1975, members of minority groups held 8.3 per cent of the full-time faculty positions. A decade later, that number had increased to 10 per cent. Asians were the only group to make significant gains. While there were 9,760 Asian faculty members in 1975, there were 19,100 ten years later.

Copies of the report, "Minorities in Higher Education: Seventh Annual Status Report," are available for $8, prepaid, from the Office of Minority Concerns, American Council on Education, One Dupont Circle, Washington 20036.

2 in Stanford Bias Case Barred from Residences

Two Stanford University freshmen who admitted involvement in a racial incident at a dormitory were barred last week from student residences for two quarters as punishment.

The students, Gus Heldt and Ben Dugan, both of whom are white, had been living at Ujamaa House, a black "theme residence" on the campus. They both admitted coloring the face and drawing thick lips on a flier depicting Beethoven displayed at the house in October, the university said.

Their "insulting caricature" violated anti-bias terms of the residence agreement that all students admitted to campus housing must sign, said Norman Robinson, an associate dean of students.

U. of Montana Plans Aid for Valedictorians

The University of Montana is planning to sell 300 acres of property in Missoula to establish college scholarships for the states' high-school valedictorians and salutatorians.

The property is now used for storage and a primate-research laboratory. University officials say they know of proposals to use the land to expand an adjacent

The Chronicle of Higher Education (ISSN 0009-5982) is published weekly except the last two weeks in August and the last two weeks in December, at 1255 Twenty-Third Street, N.W., Washington, D.C. 20037. Subscription rate: $55 per year. Second-class postage paid at Washington, D.C., and at additional mailing offices. Copyright © 1989 by The Chronicle of Higher Education, Inc. Printed in the United States of America. POSTMASTER: Send address changes to The Chronicle of Higher Education, P.O. Box 1955, Marion, Ohio 43305. Member, Audit Bureau of Circulations. The Chronicle reserves the right not to accept an advertiser's order. Only publication of an advertisement shall constitute final acceptance of the advertiser's order.

last meeting but the first of many to come and that they wanted our input on whatever the government could do to improve education."

An Agenda for the President

The college presidents said they asked President-elect Bush to do the following:

- Re-establish the National Advisory Committee on Black Higher Education and Black Colleges and Universities. The 16-member panel, which produced a series of reports, was established in 1976 but was abolished by President Reagan during his first term in office. The presidents said the panel would give the Bush Administration information it needed on black colleges. "Policy recommendations should be based on hard research and data rather than just on intuition and politics," said Benjamin F. Payton, president of Tuskegee University.
- Extend President Reagan's order that federal agencies attempt to direct more grant and contract money to historically black institutions and establish an office within the White House to administer the effort. Currently, the program is coordinated through the Education Department.
- Put aside a proposal by former Education Secretary William J. Bennett that would strip federal student aid from institutions where large numbers of former students had defaulted on their loans. Many historically black institutions have high default rates. But the college presidents said that colleges were not responsible for collecting the loans and should therefore not be penalized when students do not repay.
- Reverse the shift in federal student aid from grants to loans that has occurred during the Reagan Presidency. The presidents said that students at black colleges must frequently borrow too much to attend college and often cannot repay their loans once they leave.
- Establish new plans to encourage minority students to become teachers. The nation's schoolchildren are increasingly non-white, the presidents noted, but only a small proportion of teachers are members of minority groups.
- Bolster federal programs that aid minority graduate students.
- Increase federal funds to help colleges build and reburbish campus buildings and laboratories.

but Some Suffer

ties from California to Maine have turned military closings to their advantage.

In 1967, Springfield Technical Community College in Massachusetts moved to the Springfield Arsenal, an Army installation built in 1794. The college gained new space and also became home to a military museum that houses prototypes of the historic "Springfield Rifle," which was used by the Army from 1868 to 1893 because it was accurate up to two miles, an exceptional range for a rifle in those days.

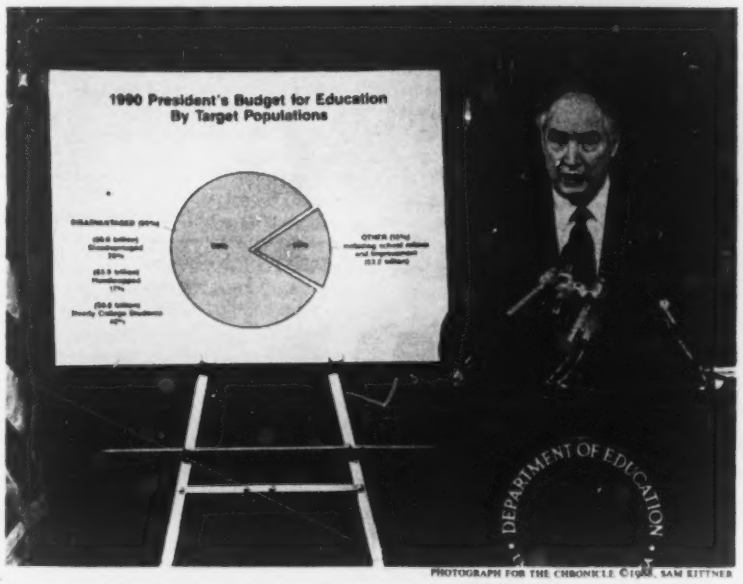
241-Acre Site in New Mexico

After the Department of Defense closed Walker Air Force Base in 1965, Eastern New Mexico University at Roswell moved to the 241-acre site. When Fort Walters closed in 1974, the government offered space on the former Army post in Texas to Weatherford College. The college, located about 20 miles east of the post, opened a

Continued on Page A24

REAGAN'S LAST BUDGET

Freeze in Overall Education Department Spending Is Proposed



PHOTOGRAPH FOR THE CHRONICLE ©1989, SAM KITTNER

Education Secretary Lauro F. Cavazos unveils President Reagan's proposed education budget for fiscal year 1990.

By ROBIN WILSON
WASHINGTON

President Reagan last week proposed a freeze in overall Education Department spending at $21.9-billion for the coming fiscal year.

Some education programs—particularly those that aid minority and disadvantaged students—would receive slightly more money during the 1990 fiscal year. Other programs—such as those that aid graduate students and help colleges refurbish buildings—would be cut back or eliminated altogether under the President's plan.

In either case, Congress is expected to substantially alter the request, which is part of President Reagan's federal budget for fiscal 1990, before the fiscal year begins October 1.

Over all, money for student-aid programs would be reduced by about 2 per cent, to $8.8-billion. Funds for Pell Grants, which go to the neediest students, and Supplemental Educational

Continued on Following Page

Fate of Federal Funds for Science and Technology Is in Doubt

By COLLEEN CORDES
and DAVID L. WHEELER
WASHINGTON

President Reagan's budget proposal for science and technology contained as much money as researchers said they could have hoped for. But some questioned whether the plan made the best use of the nation's science dollars, and many doubted that Congress and President-elect Bush would go along with all of the suggestions.

The President, for example, proposed increases for basic research in the 1990 fiscal year of about 6 per cent, even as he outlined dozens of other controversial steps to shave tens of billions of dollars from the federal deficit—a goal required by law.

The Administration estimated that spending for basic research at universities would go up by about 4 per cent. For all federal spending on research and development, the increase would be about 7 per cent.

"Given the climate, it's a pretty strong budget," said Albert H. Teich, who heads the Office of Public Sector Programs for the American Association for the Advancement of Science.

Bush a Strong Supporter

President-elect Bush has said that he is a strong supporter of science research, and he has publicly endorsed many of the expensive science and technology projects that President Reagan has backed.

But experts on science policy and the budget said that Mr. Bush would be under pressure to find more politically palatable ways to reduce the federal deficit than those identified by Mr. Reagan. (The Reagan budget, for example, would eliminate many programs that Congress has repeatedly rescued in the past.)

Mr. Bush's stated unwillingness to increase income taxes, the experts added, will make the sizable increases Mr. Reagan has proposed for some science and technology initiatives even more vulnerable.

However, if Mr. Bush decides to spend less on defense than Mr. Reagan has proposed, he would have more money available to try to match the increase for science and technology that Mr. Reagan sought.

Different Priorities Possible

Robert M. Rosenzweig, president of the Association of American Universities, predicted that the President-elect might propose at least as much for science and technology, but would try to distribute it differently.

For example, a Congressional aide said Mr. Bush might ask for less for the space station and more for science education.

Still, there are many non-science programs that the Bush Administration may decide to bolster, if it does choose to seek less for the Pentagon.

And any proposals for big increases for science and technology that survive the scrutiny of the new Bush Adminis-

Continued on Following Page

If Congress Concurs, Teaching Hospitals Could Lose More Than a Billion Dollars

WASHINGTON

The nation's teaching hospitals stand to lose more than a billion dollars if President Reagan's budget proposals are adopted by Congress. Unlike many of the President's other proposed budget cuts, at least part of his agenda for the hospitals stands a good chance of approval this year.

The Reagan Administration has long argued that the country has enough doctors and nurses, and that medical education does not need any federal subsidies. The Administration also has said that teaching hospitals make too much money from Medicare compared to other hospitals.

But this year the Administration has fresh ammunition to push for a $1-billion cut in Medicare payments to teaching hospitals.

A study by the General Accounting Office, released just before President Reagan issued his budget, supported the Administration's contention that the formula used to give teaching hospitals extra money under Medicare is too generous.

The Association of American Medical Colleges, in a statement included in the accounting office's report, rejected its conclusions, saying the study suffered from poor statistical analysis.

But since the study was requested by the chairmen of three powerful Congressional committees—the House Energy and Commerce Committee, the House Ways and Means Committee, and the Senate Committee on Finance—it is expected to carry weight in the Congress and to give the Administration a better chance of achieving the reduction it has sought in the past.

Their Costs Are Higher

The $1-billion the Administration wants to cut would come from Medicare's "indirect medical-education payments," extra money given to teaching hospitals to compensate for their higher costs in caring for patients. Their costs are higher, the teaching hospitals maintain, because they must accept more difficult cases, employ more staff members for each patient, conduct more diagnostic tests, and maintain more detailed records than other hospitals.

Along with the $1-billion cut in the indirect medical-education payments to the teaching hospitals, President Reagan proposed other policies that would

Continued on Following Page

Freeze Proposed in Education Department Spending

Continued from Preceding Page

Opportunity Grants, which colleges distribute to students as they see fit, would increase by small amounts. Money for College Work-Study would remain at this year's level, and State Student Incentive Grants, which help states aid needy college students, would be eliminated.

The 1990 budget is President Reagan's last before he leaves office this week. The education request differs markedly from the President's proposals of previous years. Until last year, Mr. Reagan sought deep reductions in education spending, but Congress consistently blocked them. Last year, he sought significant increases in many education programs. The 1990 education budget falls somewhere between his earlier plans and last year's request.

Congressional aides said last week that the huge federal deficit would restrict spending on all federal programs next year. But they said lawmakers probably would approve more money for Education Department programs than the President requested, and would pay little attention to the details of Mr. Reagan's budget plan.

Education lobbyists have asked for a large spending increase for next year, and most said last week that President Reagan's budget proposal fell short of their needs.

Praised by Cavazos

Education Secretary Lauro F. Cavazos praised the budget request. He also denied that his support for the budget was inconsistent with statements he made during his Senate confirmation hearings last year in which he pledged to seek increases in federal education spending.

"I think when you look at all the other departments, we came out pretty well," the Secretary said at a news conference where he unveiled the budget plan. "We are making some difficult decisions with all of the budgetary constraints we are facing." Indeed, spending for other federal departments—including Agriculture and Interior—would be cut if President Reagan had his way. Money for the Defense Department and the Energy Department, on the other hand, would be increased.

Education Department officials who requested anonymity said Mr. Cavazos had battled with White House budget officials to keep them from proposing an overall reduction in the Education Department's budget. Mr. Cavazos and his advisers last week declined to talk about the Secretary's negotiations with the White House.

The Secretary also refused to say whether President-elect Bush would propose dramatic changes in the education budget after he takes office this week. Mr. Bush, who has said he wants to be known as the "Education President," has indicated that he would seek increased spending for education programs.

Some of Mr. Bush's aides have said that the President-elect would accept a smaller increase in military spending than Mr. Reagan, freeing up some money for spending on social programs.

Lobbyists Asked for Increase

Education lobbyists, who have consistently criticized President Reagan's budget proposals for education, held a press conference earlier this month to recommend that President-elect Bush request an 11-per-cent increase in education spending. They said such an increase was necessary because federal aid had not kept up with the rise in college tuitions.

Last week, many college officials said President Reagan's proposals would create problems for them and for their students. Robert W. Evans, director of student aid at Pennsylvania State University, said the President's proposal to increase money for Pell Grants, while decreasing money provided for other student-aid programs, was simply a "redistribution" and probably would not mean a net gain for students. He said spending on all grant programs should rise to help "halt what's been a constant movement to having students rely more on loans."

At least one association official, however, was pleased with last week's budget proposal.

Robert H. Atwell, president of the American Council on Education, called Secretary Cavazos to congratulate him on the spending plan. Mr. Atwell said it was the first time he had praised an Education Secretary for the Reagan Administration's budget recommendations.

"In the climate that he's in, he and we ought to feel good," said Mr. Atwell. "There are a lot of areas in the President's budget that are going to get cut."

Because of the federal deficit and a 1986 law that set timetables that Congress must follow to reduce it, lawmakers must slice $40-billion in spending this year or raise taxes. President-elect Bush has said he would not increase taxes.

8-Pct. Increase in Election Year

Last year, Congress approved a relatively hefty 8-per-cent increase in education spending. But that was during an election year, when politicians typically attempt to please their constituents by being more generous in spending for federal programs.

"Congress is going to face a much more difficult struggle in funding anything this year than it did last year," said one Congressional aide.

Under the President's proposal, $4.7-billion would be available for Pell Grants in fiscal 1990. That is a 6-per-cent rise from the amount available this year, and one of the few increases in education programs above the 4-per-cent increase needed to keep spending on federal programs at pace with inflation. It would be enough to provide grants to 46,000 more students than the 3 million who received grants this year.

For the first time, beginning in academic 1989-90, students who enroll in only one or two courses would be able to receive Pell Grants. Now, students must attend college at least half-time to be eligible for grant money.

Congress voted to allow students enrolled in only one or two courses to receive Pell Grants when it revised the Higher Education Act in 1986. But it said then that money had to be appropriated for all full-time students who met the financial-need test before less-than-half-time students could receive funds.

Secretary Cavazos said last week that the department specifically requested enough money so that students who take only one or two courses could be eligible.

Fate of Federal Funds for Science and Technology Programs Is in Doubt

Continued from Preceding Page

tration will be "a lightning rod" for Congress as lawmakers look for ways to spread the pain of shrinking the deficit, warned Robert L. Park, executive director of the Washington office of the American Physical Society and a professor of physics at the University of Maryland.

Washington science lobbyists were already speculating last week, for example, that Mr. Bush would reject the Reagan Administration's idea of spending $250-million in fiscal 1990 on the Superconducting Supercollider.

That would be an increase of about 150 per cent for the effort to build the world's largest particle smasher. Mr. Bush is expected to support considerably less, although enough to keep the project alive.

Increase Requested for NSF

Once again Mr. Reagan asked for a large increase in support for the National Science Foundation—about 14 per cent—so the agency could continue to pursue a doubling of its budget in the next few years. Included in the budget would be about $20-million to support a new competition to establish 8 to 10 new science and technology centers. Such centers have caused controversy in the past, with opponents contending that they drain support from individual researchers.

For the second year in a row, the President sought an increase—about 3.6 per cent—for the National Institutes of Health. That proposal contrasts with earlier attempts by his Administration to find innovative ways to reduce the institutes' budget. The increase for basic research at the N.I.H. would be about 6.6 per cent.

Another Reagan proposal, however, would for the first time limit university researchers who receive N.I.H. grants from earning more than $120,000 in salary from the grants.

Treated as High Priorities

Generally, however, the Reagan budget plan treats science and technology, and high-profile projects in particular, as high priorities. Large amounts of the proposed increases would go to several big-ticket projects, particularly those involving more technology than pure science.

The President, for example, last week proposed huge increases for the Strategic Defense Initiative and the space station. At the National Institutes of Health, the big winners would be research related to AIDS and the project to map the human genome.

While support for the Superconducting Supercollider would soar, other spending for basic research at the Department of Energy would rise by a much more modest 9 per cent.

The budget for research and the development of products related to the space program would go up by about 35 per cent. The bulk of that increase, however, would go for further work on the space station, for which spending would increase from about $900-million this year to more than $2-billion. The office that supports most academic space science would receive an increase of about 9 per cent.

The agriculture budget also contained mixed news for researchers. The Cooperative State Research Service, which is the main source of federal money for academic agricultural research, would be cut by almost 13 per cent.

But the cuts in agriculture research largely represent the Reagan Administration's opposition to continuing support for specific campus projects for which Congress has earmarked money in the past. The research service's total budget would actually increase slightly, if those specific projects were discounted.

Even though defense spending would increase under President Reagan's budget proposal, military research would be among the science budgets that would actually go down. Both Congress and the Defense Department's own advisory panels have supported increases in spending on the Pentagon's "technology base," the research that fuels technology advances in weapons.

Mr. Reagan proposed cutting the budget for such work by about 5.6 per cent, even as he held fast to his long-time goal of increasing military spending over all. In contrast, the entire Defense Department, under his plan, would get an increase of about 5.3 per cent.

Basic Research Gets a Boost

Budget officials responsible for the Department of Health and Human Services said they had decided to allow small increases for basic research throughout the department, but had limited increases or proposed cuts for most other areas, such as applied research or research administration.

At the National Institutes of Health, department budget officials said they would let the N.I.H. manage the increase in basic research of 6.6 per cent as the institutes wished.

Under the proposed budget, the total number of research grants supported by the institutes would drop by 357 grants, to 19,773 grants in 1990. Officials at the institutes said that, given the budgetary limit, they would prefer to increase the amount of money being given to those who are in the middle of grants already awarded than increase the number of new grants. Traditional Congressional generosity toward the institutes, however, may make that plan unnecessary.

The institutes' budget also includes a $100-million commitment to the human-genome project, which seeks a complete understanding of the genetics behind normal human functioning and inherited disease.

Secretary for Health and Human Services Otis R. Bowen said that the top priority of the department continued to be efforts to combat acquired immune deficiency syndrome. The department's total AIDS budget—for research, education, and prevention—would go up 24 per cent, to $1.6-billion.

The research institutes within the Alcohol, Drug Abuse and Mental Health Administration would also receive a 25-per-cent increase in money for research on AIDS. Some $140-million of the $218-million the mental-health and drug-abuse institutes would receive in AIDS money would be for research on the connection between drug abuse and AIDS.

Other research spending within the Alcohol, Drug Abuse and Mental Health Administration would mirror the pattern at N.I.H. More money would be spent for basic research, resulting in a 9.2-per-cent increase, but other spending would be tightened to result in an increase of only 5.45 per cent for the entire agency.

Along with its budget request, the Reagan Administration released a new report on the federal strategy for research on changes in the global environment. The Administration called for a total increase of 42 per cent for such research, for a total of about $190.5-million.

Teaching Hospitals Could Lose More Than a Billion Dollars

Continued from Preceding Page

strip money from those hospitals and from medical schools:

- His budget would require teaching hospitals to repay the government some money they have been receiving since 1985. Officials at the Health Care Financing Administration say the teaching hospitals have been paid too much for "direct medical-education payments"—which support the salaries of medical residents and related expenses—and they want some of the money back. A regulation to be issued in 1989 will specify how much each hospital should have spent for direct medical education. The regulation will result in money being returned to the government as well as in future budgetary savings, administration officials say. For 1990, the government would save $400-million.
- Direct medical-education payments would be cut by $150-million next year, leaving $1.3-billion for the payments. The cut would have to be achieved by passing legislation to limit those payments in the future to the salaries of residents alone, and to eliminate other costs such as overhead for classroom space.
- Money for education in the health professions allocated by the Health Resources and Services Administration—some $212-million—would be wiped out completely, eliminating a host of programs, including money for scholarships to exceptionally needy medical students and financial aid to nursing students.

Cuts Have Been Tried Before

Lobbyists for medical schools say the proposed cuts in health-professions education have been tried before and have little chance of receiving Congressional approval.

The proposed cuts in funds for nursing education, for instance, came only a month after a commission established by Secretary of Health and Human Services Otis R. Bowen said that the nation is facing a nursing shortage and that increased financial aid is part of the solution.

Lobbyists for teaching hospitals, however, may have to take more seriously the Administration's proposal to reduce payments for indirect costs.

The G.A.O. study, "Medicare: Indirect Medical Education Payments Are Too High," agreed with the teaching hospitals' contention that they face higher expenses than other hospitals. But the G.A.O. said that the formula used to determine those extra expenses was too generous to the teaching hospitals. The reduction G.A.O. suggested in the formula, however, was not quite as severe as the one proposed by the Administration.

—DAVID L. WHEELER

FACT FILE: Higher-Education Funds Requested in Fiscal 1990 Budget

In the Department of Education

	Fiscal 1988 actual	Fiscal 1989 estimate	Fiscal 1990 request
Student assistance			
Pell Grants	$4,260,430,000	$4,483,915,000	$4,740,000,000
Supplemental Grants	408,415,000	437,972,000	452,863,000
College Work-Study	588,249,000	610,097,000	610,097,000
Income-contingent loans	4,306,000	4,940,000	20,000,000
State Student Incentive Grants	72,762,000	71,889,000	0
Perkins Loans	210,628,000	205,507,000	22,000,000
Stafford Student Loans	2,565,000,000	3,174,400,000	2,962,533,000
Paul Douglas Teacher Scholarships	14,840,000	15,235,000	0
Graduate support			
Patricia Roberts Harris graduate fellowships	15,304,000	15,711,000	16,245,000
Robert C. Byrd honors scholarships	7,659,000	8,200,000	8,479,000
Jacob K. Javits fellowships	6,702,000	7,904,000	5,770,000
Patricia Roberts Harris public-service fellowships	3,221,000	3,320,000	0
Minority participation graduate fellowships	3,351,000	3,476,000	3,594,000
Areas of National Need fellowships	7,659,000	12,844,000	11,945,000
Institutional assistance			
Developing institutions			
Aid for historically black colleges	73,162,000	84,422,000	87,293,000
Endowment challenge grants	19,148,000	12,696,000	13,128,000
Institutional support	60,060,000	77,459,000	80,093,000
Cooperative education	13,787,000	13,622,000	0
Facilities			
College-housing and academic-facilities loans	62,231,000	31,315,000	5,129,000
Interest-subsidy grants	21,878,000	22,744,000	22,744,000
International education	30,685,000	31,058,000	30,317,000
Law School Clinical Experience	3,830,000	3,952,000	0
Veterans' Education Outreach	2,872,000	2,838,000	0
Bilingual education			
Bilingual vocational training	3,734,000	3,771,000	0
Training grants	35,447,000	30,413,000	30,413,000

	Fiscal 1988 actual	Fiscal 1989 estimate	Fiscal 1990 request
Library resources			
Research libraries	$5,744,000	$5,675,000	$ 0
Training and demonstration	718,000	709,000	0
College-library technology grants	3,590,000	3,651,000	0
Aid to disadvantaged			
College-aid migrant programs	1,340,000	1,482,000	1,482,000
Legal Training for the Disadvantaged	1,915,000	1,892,000	1,956,000
Minority Institutions Science Improvement	5,266,000	5,307,000	5,487,000
Programs for disadvantaged students	205,841,000	219,257,000	228,168,000
Education research and statistics			
Education research	46,573,000	47,079,000	50,960,000
Education statistics	20,953,000	31,122,000	37,370,000
Education for the handicapped			
National Institute on Disability and Rehabilitation Research	51,100,000	52,883,000	52,883,000
Research and development	17,233,000	17,026,000	17,026,000
Personnel development	66,410,000	67,095,000	67,095,000
Rehabilitation training	30,000,000	30,134,000	30,134,000
Postsecondary programs	5,840,000	5,770,000	5,770,000
Miscellaneous			
Adult education	134,036,000	162,210,000	170,000,000
Vocational education grants	804,216,000	831,566,000	949,400,000
Teacher training	131,727,000	151,434,000	155,347,000
Office for Civil Rights	40,530,000	40,845,000	45,178,000
Drug abuse education, prevention for college students	17,800,000	27,800,000	28,700,000
Fund for the Improvement of Postsecondary Education	11,645,000	11,856,000	11,856,000
Student Literacy Corps	—	4,900,000	5,100,000
Women's educational equity	3,351,000	2,949,000	0
School, College, and University Partnerships	2,394,000	2,760,000	2,854,000

In Other Federal Agencies

	Fiscal 1988 actual	Fiscal 1989 estimate	Fiscal 1990 request
Scientific research			
National Institutes of Health			
Cancer Institute	$1,469,327,000	$1,570,866,000	$1,494,741,000
Heart, Lung, and Blood Institute	965,536,000	1,045,670,000	1,039,846,000
Institute of Dental Research	126,297,000	130,724,000	131,527,000
Institute of Diabetes, Digestive, and Kidney Diseases	534,733,000	559,509,000	577,235,000
Institute of Neurological and Communicative Disorders and Stroke	534,692,000	479,982,000	485,597,000
Institute of Allergy and Infectious Diseases	638,800,000	741,577,000	442,596,000
Institute of General Medical Sciences	632,676,000	682,259,000	766,421,000
Institute of Child Health and Human Development	396,811,000	425,468,000	417,064,000
Eye Institute	224,947,000	231,190,000	233,777,000
Institute of Environmental Health Sciences	215,666,000	223,420,000	226,471,000
Institute on Aging	194,746,000	222,639,000	229,620,000
Institute of Arthritis, Musculoskeletal, and Skin Diseases	147,679,000	159,891,000	167,334,000
Research Resources	368,153,000	358,261,000	263,313,000
Center for Nursing Research	23,360,000	29,133,000	29,970,000
Institute of Deafness and Other Communication Disorders	—	86,530,000	91,433,000
International Center	15,651,000	15,810,000	10,622,000
Library of Medicine	67,910,000	73,731,000	78,229,000
Total N.I.H.	6,199,000,000	6,543,000,000	6,777,000,000
AIDS research, education, and prevention	956,000,000	1,269,000,000	1,600,000,000
National Science Foundation			
Program management	84,466,000	90,550,000	104,000,000
Total research	1,453,000,000	1,583,000,000	1,803,022,000
Science and engineering education	139,200,000	171,000,000	190,000,000
Antarctic program	124,800,000	131,000,000	156,800,000
Total National Science Foundation	1,717,000,000	1,885,000,000	2,149,022,000
Department of Agriculture			
Cooperative research			
Hatch Act support	154,640,000	155,545,000	155,545,000
Payments to black colleges	23,333,000	24,333,000	25,333,000
Special research grants	51,780,000	61,406,000	15,791,000
Competitive research grants	42,372,000	39,716,000	63,542,000
Animal-health research	5,476,000	5,476,000	0
Total cooperative research	352,019,000	340,917,000	295,398,000
Extension service	357,963,000	361,370,000	324,840,000
Department of Defense			
Basic research	898,900,000	955,500,000	929,900,000
University Research Initiative	85,000,000	141,000,000	96,000,000
Strategic Defense Initiative			
Research and development	3,900,500,000	3,948,424,000	5,901,603,000
Department of Energy			
General science	355,100,000	922,100,000	1,169,400,000
Superconducting Supercollider	25,000,000	98,600,000	250,000,000
Basic energy sciences	437,200,000	549,300,000	590,000,000
Environmental Protection Agency			
Research and development	186,350,000	202,500,000	235,000,000
National Aeronautics and Space Administration			
Research and development	3,279,900,000	4,241,600,000	5,751,600,000
Space station	489,509,000	887,129,000	1,992,690,000

	Fiscal 1988 actual	Fiscal 1989 estimate	Fiscal 1990 request
Health research and training			
Alcohol, Drug Abuse, and Mental Health Administration			
Research	$513,000,000	$623,000,000	$657,000,000
Centers for Disease Control			
Occupational safety, health			
Research and training	69,342,000	70,355,000	44,586,000
Health professions			
Health-professions education			
Exceptional-need scholarships	6,702,000	6,622,000	0
Aid to disadvantaged students	27,406,000	27,077,000	0
Primary-care and family-medicine training	64,415,000	63,642,000	0
Nurse training	54,046,000	55,921,000	0
Total, Health-professions education	208,000,000	212,317,000	0
National Health Service Corps	37,442,000	39,866,000	20,000,000
National Health Service Corps scholarships and loan repayment program	3,944,000	7,906,000	7,906,000
Medical-facilities guarantees and loans	22,000,000	21,600,000	21,000,000
Area health-education centers	17,233,000	17,026,000	0
Arts and humanities			
National Endowment for the Humanities			
Education programs	16,343,000	16,150,000	16,200,000
Fellowship programs	15,345,000	15,560,000	15,400,000
General programs	22,646,000	22,840,000	23,180,000
Research programs	16,556,000	16,400,000	17,000,000
State programs	21,300,000	25,000,000	25,000,000
Office of Preservation	14,500,000	12,330,000	13,500,000
Challenge grants	16,500,000	16,700,000	14,700,000
Treasury matching grants	12,000,000	12,000,000	12,000,000
Total National Endowment for the Humanities	140,435,000	153,000,000	153,250,000
National Endowment for the Arts	167,731,000	169,090,000	170,100,000
Institute of Museum Services	21,944,000	22,270,000	23,350,000
National Archives & Records Administration	116,000,000	121,900,000	122,612,000
Civil rights			
Commission on Civil Rights	5,707,000	5,707,000	7,857,000
Equal Employment Opportunity Commission	179,812,000	180,712,000	188,700,000
Miscellaneous			
Corporation for Public Broadcasting	214,000,000	228,000,000	232,648,000
Veterans' educational benefits	575,969,000	562,789,000	413,386,000
Peace Corps	146,200,000	153,500,000	163,614,000
U.S. Information Agency			
Educational and cultural exchanges	150,040,000	150,040,000	153,000,000
Postal subsidies for non-profit organizations	517,001,000	436,417,000	459,755,000
Small Business Development Centers	39,600,000	45,000,000	0